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**Subsidiary Body for Scientific and Technological Advice**
**Fortieth session**
**Bonn, 4–15 June 2014**

Item 11(a) of the provisional agenda
**Methodological issues under the Convention**
**Work programme on the revision of the guidelines for the review of biennial reports and national communications, including national inventory reviews, for developed country Parties**

# Report on the technical workshop on the draft revised guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention

## Note by the secretariat

*Summary*

This report provides a summary of the discussions held during the technical workshop on the revision of the "Guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention". The workshop, co-chaired by Ms. Riitta Pipatti (Finland) and Mr. Brian Mantlana (South Africa) and held from 8 to 10 April 2014 in Bonn, Germany, was organized under a work programme of the Subsidiary Body for Scientific and Technological Advice (SBSTA). The report, together with the draft revised guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention that reflect the discussions at the workshop (FCCC/SBSTA/2014/INF.10), is forwarded to SBSTA 40 for consideration under the relevant agenda item.

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# Contents


| | | *Paragraphs* | *Page* |
|---|---|---|---|
| I. | Introduction | 1–6 | 3 |
| | A. Mandate | 1–4 | 3 |
| | B. Scope of the note | 5 | 4 |
| | C. Possible action by the Subsidiary Body for Scientific and Technological Advice | 6 | 4 |
| II. | Proceedings of the workshop | 7–13 | 4 |
| III. | Summary of discussions | 14–39 | 5 |
| | A. Principles of the review | 14–18 | 5 |
| | B. Stages of the review of greenhouse gas inventories of Annex I Parties | 19–20 | 6 |
| | C. Operational approaches to the individual inventory review: desk, centralized and in-country reviews | 21–25 | 7 |
| | D. Scope and focus of the different stages of the review | 26–34 | 8 |
| | E. Timing of the review stages | 35–36 | 9 |
| | F. Reporting | 37–39 | 10 |
| IV. | Outcome of the workshop | 40 | 10 |

# I. Introduction

## A. Mandate

1. The Conference of the Parties (COP), by decision 1/CP.16, paragraph 46, decided on a work programme, building on existing reporting and review guidelines, processes and experiences, covering the revision of guidelines for the review of national communications (NCs), including biennial reports (BRs), annual greenhouse gas (GHG) inventories and national inventory systems. The COP, by decision 2/CP.17, paragraph 28, decided to establish a work programme under the Subsidiary Body for Scientific and Technological Advice (SBSTA).

2. SBSTA 36 initiated its consideration of the work programme, including the organization of technical workshops. SBSTA 37 agreed on the elements and timeline for the work programme on the revision of the guidelines for the review of BRs and NCs, including national inventory reviews, for developed country Parties.[1] At the same session, the SBSTA also requested the secretariat to organize two workshops:

(a) The first technical workshop on the revision of the guidelines in October 2013 to discuss the overall approach to the review process related to BRs, NCs and GHG inventories, as well as the revision of the review guidelines for BRs and NCs;

(b) The second technical workshop in the first half of 2014 to continue discussions on the "Guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention" (hereinafter referred to as the UNFCCC Annex I inventory review guidelines).

3. At SBSTA 39, Parties were invited to submit to the secretariat detailed views on the structure, outline, key elements, including the purpose and scope of the review, timing and reporting, and content of the UNFCCC Annex I inventory review guidelines. At the same session, the SBSTA agreed that, in their consideration of the revision of the UNFCCC Annex I inventory review guidelines, Parties should take into account experience with the review of information submitted by Parties included in Annex I to the Convention (Annex I Parties) and the need to have a cost-effective, efficient and practical review process that does not impose an excessive burden on Parties, experts or the secretariat. At the same session, the SBSTA requested the secretariat to prepare a synthesis report[2] on those views and a revised draft of the UNFCCC Annex I inventory review guidelines[3] based on those submissions,[4] as input to the second technical workshop under the work programme referred to in paragraph 1 above.[5]

4. The COP adopted, by decision 23/CP.19, the guidelines for the technical review of BRs and NCs by Annex I Parties. The annex to that decision contains a placeholder for the UNFCCC Annex I inventory review guidelines, to be further discussed at SBSTA 40, with a view to adopting a decision on these guidelines at COP 20.[6]

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[1] The work programme with specific timelines and activities for 2013 and 2014 is contained in FCCC/SBSTA/2012/5, annex I.

[2] FCCC/SBSTA/2014/INF.3.

[3] FCCC/SBSTA/2014/INF.4.

[4] The submissions received are available at <http://unfccc.int/documentation/submissions_from_parties/items/5901.php>.

[5] FCCC/SBSTA/2013/5, paragraph 68.

[6] FCCC/SBSTA/2013/3, paragraph 88(b).

### B. Scope of the note

5. This report covers the proceedings of, and discussions during, the technical workshop on the revision of the UNFCCC Annex I inventory review guidelines (hereinafter referred to as the workshop), held under the work programme as described in paragraph 1 above. The participants of the workshop produced a revised draft of the UNFCCC Annex I inventory review guidelines, which, together with the guidelines for the review of BRs and NCs under the Convention adopted by decision 23/CP.19, is contained in document FCCC/SBSTA/2014/INF.10.

### C. Possible action by the Subsidiary Body for Scientific and Technological Advice

6. SBSTA 40 may wish to take into account this workshop report, the views submitted by Parties and the synthesis report on those submissions, mentioned in paragraph 3 above, and the revised draft of the UNFCCC Annex I inventory review guidelines[7] in advancing its work on the revision of said guidelines.

## II. Proceedings of the workshop

7. The workshop, organized by the secretariat, was held in Bonn, Germany, from 8 to 10 April 2014. Forty-nine participants representing 44 Parties (20 Annex I Parties and 24 Parties not included in Annex I to the Convention) attended the workshop. Mr. Emmanuel Dlamini, the Chair of the SBSTA, opened the workshop. At the request of the Chair, the workshop was co-facilitated by Ms. Riitta Pipatti (Finland) and Mr. Brian Mantlana (South Africa).

8. The aim of the workshop was to clarify Parties' views, seek convergence or find a middle ground for agreement, and to advance the technical drafting of the UNFCCC Annex I inventory review guidelines before SBSTA 40. This would help SBSTA 41 to complete the work on those guidelines and to forward a draft decision on the guidelines for adoption to COP 20, in accordance with the work programme adopted at SBSTA 37. The adoption of the UNFCCC Annex I inventory review guidelines at COP 20 is critical to enable Parties, review experts and the secretariat to implement the reviews of the GHG inventories submitted by 15 April 2015.

9. Following the opening of the workshop by the Chair of the SBSTA, at which the mandate and objectives of the workshop were elaborated, a presentation by representatives of the secretariat briefed participants on the current status of the work programme and the organization of the work.[8] Then, the key elements in the Parties' views submitted were summarized by workshop participants. The two following presentations, by the secretariat, introduced the synthesis report on the submissions from Parties and the draft revised UNFCCC Annex I inventory review guidelines referred to in paragraph 3 above.

10. Following the presentations referred to in paragraph 9 above and the subsequent exchanges of views, participants, guided by the co-facilitators, started discussions on the text of the guidelines, using the draft revised UNFCCC Annex I inventory review guidelines referred to in paragraph 3 above as a starting point. In the discussions, the participants further clarified their views and the rationale behind them, sought possible

[7] FCCC/SBSTA/2014/INF.10.

[8] The presentations made at the workshop are available at <http://unfccc.int/meetings/bonn_jun_2014/workshop/8097.php>.

directions for a convergence of views and identified issues that need to be further considered at SBSTA 40.

11. In the final session of the workshop, the co-facilitators summarized the discussions of the last three days and noted that the draft UNFCCC Annex I inventory review guidelines as revised at the workshop could serve as a basis for further discussion at SBSTA 40.[9] Finally, the Chair of the SBSTA closed the workshop.

12. Chapter III below summarizes the main points made during the technical discussions at the workshop and reflected in the text of the draft revised UNFCCC Annex I inventory review guidelines.[10]

13. All documentation relating to the workshop, such as the background documents, the workshop agenda, the list of participants and the presentations made by the secretariat, are available on the UNFCCC website.[11]

# III. Summary of discussions

## A. Principles of the review

### 1. Enhance the cost-effectiveness and efficiency of reviews

14. All participants acknowledged the importance of continued annual reviews of GHG inventories submitted by Annex I Parties, and, within this framework, suggested some examples of potential streamlining. For instance, some participants supported consolidating the current stages 1 and 2 of the annual review cycle into a single set of standardized checks, and some participants supported changing the periodicity of the third stage of the review (the review of individual annual inventories through centralized, in-country or desk reviews) to biennial, as possible alternatives to the current approach that would not jeopardize the quality and robustness of the reviews and contribute to the cost-efficiency of the process.

15. Specific suggestions discussed on improving the cost-effectiveness and efficiency of reviews included:

(a) Changing to biennial the periodicity of the current third stage of the review of GHG inventories (review of the individual annual inventory);

(b) Merging the current first two stages of the review process into a single stage of standardized checks (see para. 20(b) below);

(c) Focusing the work of the expert review teams (ERTs), including work on the most significant categories of emissions in the country (see paras. 16 and 26–34 below);

(d) Improving the presentation of information included in the annual review reports (see para. 39 below);

(e) Making better use of existing or new tools. Some examples proposed by participants included: a tool to track responses to questions and additional information provided by Parties during reviews so that the information may be considered at subsequent reviews and repetitive questions avoided, a tool to communicate online the results of stages 1 and 2 of the review and online conference tools to improve communication and reduce travel costs.

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[9] Included in document FCCC/SBSTA/2014/INF.10.

[10] As footnote 9 above.

[11] <http://unfccc.int/meetings/bonn_jun_2014/workshop/8097.php>.

16. Most participants noted the need to better focus the review, in particular by prioritizing efforts on the most significant categories of emissions and removals, and not considering minor issues. Some participants indicated the need for prioritizing the recommendations made in the review reports.

### 2. Promote consistency

17. Some participants expressed the need to continue efforts to promote consistency in the review process, especially in the third stage – during the review of individual annual inventories. Specific points included:

(a) Better reflect in the UNFCCC Annex I inventory review guidelines the quality assurance and quality control measures implemented in the previous review cycles;

(b) Continue to use the meeting of the lead reviewers of GHG inventories to promote consistency, especially of the recommendations made to different Parties in the reports of the third stage of the review of annual inventories, as well as those made to a specific Party by different ERTs over time. However, participants could not agree on whether the meeting of the lead reviewers could establish a unique interpretation on when the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual greenhouse gas inventories" (hereinafter referred to as the UNFCCC Annex I inventory reporting guidelines), the Intergovernmental Panel on Climate Change (IPCC) *2006 IPCC Guidelines for National Greenhouse Gas Inventories* or other guidance adopted by the COP could be interpreted differently;

(c) Introduce a different type of centralized review with more sectoral experts in one team and a more targeted focus of individual experts on specific source categories but with a larger number of countries under review. This could help improve consistency by bringing together, in a single review team, a larger number of experienced experts reviewing the same sector but for more countries than are currently reviewed by a single team. This would allow the experts to have a better overview of issues identified in a larger number of countries, helping to promote consistency in the treatment of similar issues across Parties.

### 3. Improve the timeliness of reviews

18. Participants noted the need to improve the timeliness of publication of the reports of the third stage of the review of annual GHG inventories without affecting the quality of those reports; the importance of strict adherence to the rules on timing was emphasized (see paras. 35 and 36 below).

## B. Stages of the review of greenhouse gas inventories of Annex I Parties

19. The COP, by decision 19/CP.8, established the general approach to the reviews. Annex I Party inventories are reviewed on an annual basis, with the review consisting of the following three stages:[12]

(a) Initial check of annual inventories (stage 1);

(b) Synthesis and assessment of annual inventories (parts I and II) (stage 2);

(c) Review of individual annual inventories (stage 3).

[12] Paragraph 3 of the "Guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention", included in document FCCC/CP/2002/8.

20. The following options were discussed:

(a) Continue with the existing process;

(b) Have two stages: standardized checks and individual inventory reviews;

(c) Maintain annually stages 1 and 2, but change to biennial the periodicity of stage 3. For stage 3, one option is that it should happen in the years in which the Party was not subject to a review of the BR or NC, while another option is that the Parties be divided into two, with each half being subject to stage 3 in alternate years.

## C. Operational approaches to the individual inventory review: desk, centralized and in-country reviews

21. The COP, by decision 19/CP.8, provided three operational approaches for stage 3 of the technical review, namely, desk reviews, centralized reviews and in-country reviews.[13] Participants noted that, currently, every year approximately three quarters of Parties are reviewed in a centralized review and the remaining Parties are visited for an in-country review. Desk reviews are, at present, rarely used.

22. For the revised UNFCCC Annex I inventory review guidelines, the following options regarding the use of desk reviews were discussed by participants:

(a) Continuing the existing operational approaches, including the use of desk reviews only as a contingency to be considered by the secretariat when difficulties or resource limitations are encountered;

(b) Including desk reviews in the planning and not using them only as a contingency.

23. The participants agreed that the use of a sectoral expert in a desk mode, when that expert is unable to attend a centralized or in-country review, should be considered as an ad hoc solution and not as a desk review as such.

24. Participants noted that the COP, by decision 19/CP.8, established that, in general, during a centralized review up to eight GHG inventories, and during a desk review up to five GHG inventories should be reviewed.[14] For the draft revised UNFCCC Annex I inventory review guidelines, participants agreed that up to four inventories should be reviewed during a centralized review. However, participants could not agree on the number of inventories (two, four or eight) that should be reviewed in desk reviews as it would depend on the circumstances under which desk reviews are conducted (i.e. only under contingency situations or as a more regular part of the review process).

25. Participants noted that, in practice, there may be a relationship between the frequency of stage 3 of the review of GHG inventories (annual versus biennial), the number of stages of review taking place in a given year for a given Party, the format of the review (desk, centralized or in-country), the emphasis placed on a given format in a given year (e.g. half of the Parties subject to desk reviews versus no desk reviews) and the number of inventories reviewed in that given format.

[13] Paragraph 18 of the "Guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention", included in document FCCC/CP/2002/8.

[14] Paragraph 19 of the "Guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention", included in document FCCC/CP/2002/8.

## D. Scope and focus of the different stages of the review

26. Participants indicated that the current checks and assessments carried out by the ERT and the secretariat during the review process are, in general, appropriate. The options discussed focused more on improving the structure of those checks (see para. 20(b) above), especially the merging of stages 1 and 2, or focused more on each stage of the review (see paras. 28–30 below). Some participants indicated the need to regularly review the checks conducted to ensure that they remain useful and that no other checks are needed; the suggestion was made that the meeting of lead reviewers could be responsible for such regular reviews.

27. As noted above, some participants supported the merging of stages 1 and 2 of the review into a single set of standardized checks. Furthermore, those participants noted that the current individual checks should be evaluated with regard to their usefulness. Because the draft revised UNFCCC Annex I inventory review guidelines used as the basis of the discussion for the workshop[15] retained the separation of stages 1 and 2, participants continued to discuss the merit of individual checks in the current stages, as presented in paragraphs 28 and 29 below.[16]

28. For stage 1, participants indicated that the scope of the checks to be undertaken could stay broadly the same as that in decision 19/CP.8, except for removing the checks that are unnecessary or not applicable anymore (e.g. because of the checks that are implemented automatically in the CRF Reporter, such as the use of correct values for global warming potentials, presentation of hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) by individual chemical species, and implementation of key category analysis).

29. For stage 2 (synthesis and assessment I and II), participants indicated that the checks on the ratio of potential to actual emissions for HFCs, PFCs and sulphur hexafluoride were no longer necessary. Participants also discussed what data sources could be used to compare the activity data in those databases with the data reported by Annex I Parties.

30. For stage 3, some participants noted that the COP, by decision 19/CP.8, established that this stage should focus on those areas of the inventory where problems, issues and/or recommendations were identified in previous reviews or stages of a review, or where changes have been reported by the Party.[17] Points raised included that this stage should focus on: key categories or categories that are not insignificant, the inventory for the most recent year submitted, recalculations and recent methodological changes.

31. In addition, for individual inventory review (stage 3 in the current guidelines), participants also discussed whether new checks should be added, for example, by:

(a) Examining national inventory arrangements for the estimation of anthropogenic GHG emissions by sources and removals by sinks, including all institutional, legal and procedural arrangements for reporting and archiving inventory information within an Annex I Party;

[15] FCCC/SBSTA/2014/INF.4.

[16] During the workshop, participants requested the secretariat to clearly distinguish two options: one retaining two stages of standardized checks, and one merging all checks into a single stage of the review. These options are reflected in document FCCC/SBSTA/2014/INF.10, annex, paragraphs 66–73.

[17] Paragraph 20 of the "Guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention", included in document FCCC/CP/2002/8.

(b) Comparing the activity data of the Annex I Party with relevant external authoritative sources, if feasible, and identifying categories where there are significant differences;

(c) Examining recalculations that exceed 2.0 per cent for individual categories and 0.5 per cent of national total emissions.

32. Participants discussed whether the different operational approaches to individual inventory review would each have a different focus, with the desk review being streamlined and focusing mainly on the findings of stages 1 and 2 (synthesis and assessment I), an analysis of significant recalculations and a review of whether, and if so, how, recommendations made in previous review reports have been implemented. No agreement was reached on this point, however, as participants concluded the focus of the desk review would depend on how the desk review is ultimately implemented (as a contingency scenario or as a more standard part of the process).

33. Also for the individual inventory review, participants discussed formalizing or better reflecting in the inventory review guidelines some of the procedures that are currently undertaken but not specifically outlined in decision 19/CP.8, for example, the useful procedures (e.g. quality assurance) and tools that the secretariat has introduced into the process, or informing the Party at the end of the review week on the provisional issues identified during the review.[18]

34. Some participants proposed that, in the individual inventory review, the ERT should inform the Party under review at the end of the review week whether there are any significant potential problems or issues related to mandatory requirements in the UNFCCC Annex I inventory reporting guidelines (including potential overestimations or underestimations). Under this proposal, a procedure could be developed, similar to that for the list of potential problems, issues and further questions raised by the ERT when reviewing Annex I Parties under the Kyoto Protocol.[19] The Party would have six weeks to respond with clarifications, corrections or explanations as to why the estimate is not an overestimate or underestimate. If no response is provided, the ERT would reflect the problem in the review report, including, if possible, a quantitative assessment of the problem or issue.

## E. Timing of the review stages

35. Regarding the standardized checks, the timing discussed depended on whether option 1 (two stages of standardized checks) or option 2 (a single set of standardized checks) was being discussed (see para. 20 above). Proponents of option 1 converged on the idea that the current timelines for stages 1 and 2 are appropriate. For proponents of a single set of standardized checks, a deadline of eight weeks from submission was discussed.

36. For stage 3, participants considered that the review reports from a centralized review should be completed and published within 20–25 weeks, from a desk review within 15–20 weeks and for each in-country review within 14 weeks. Participants also discussed the timing of the different steps within this stage 3: the drafting of the annual review report by the ERT, the quality assurance/quality control procedures and editing by the secretariat, the

[18] Something similar to the "provisional main findings and recommendations" list provided to Parties subject to a centralized review, starting in the 2013 review cycle. See paragraph 11 of the conclusions of the 10th meeting of inventory lead reviewers, available at <http://unfccc.int/files/national_reports/annex_i_ghg_inventories/review_process/application/pdf/10thlrsmeeting_conclusionsrecommendations.pdf>.

[19] Decision 22/CMP.1, annex, paragraph 73.

review by the Party of the draft report, the consideration by the ERT of the comments by the Party to the draft report, and the final edit and publication.

### F. Reporting

37. Regarding the implementation of reporting, participants discussed the possibility of replacing the reports of stages 1 and 2 (synthesis and assessment I) by other tools such as the "GHG data locator", or replacing the static reports with tools that enable customization of the analysis and the reports.

38. For stage 3 reports, participants recalled that decision 19/CP.8 indicates that "review reports should contain an objective assessment of the adherence of the inventory information to the reporting guidelines and the provisions of relevant decisions by the COP and should not contain any political judgement".[20]

39. Participants discussed possible additional recommendations related to the structure and content of the review reports. Participants broadly agreed that the reports could be more concise: 30 pages and 25 pages were identified as appropriate page limits for in-country and centralized reviews, respectively, and that the reports could consist of more tabular information. Participants suggested that to make the report more concise, information already publicly available should not be included. Some participants indicated that the report should also include recommendations to improve the quality of the inventory and some suggested that it include a prioritization of the recommendations (the influence of the category on emission or removal levels being the most important criterion).

## IV. Outcome of the workshop

40. The workshop produced the draft revised UNFCCC Annex I inventory review guidelines, contained in document FCCC/SBSTA/2014/INF.10, which will be forwarded to SBSTA 40. The draft text, prepared on the basis of document FCCC/SBSTA/2014/INF.4, clearly shows the additions and deletions of text suggested by the participants during the technical discussions at the workshop.[21]

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[20] Paragraph 39 of the "Guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention", included in document FCCC/CP/2002/8.

[21] Minor structural changes made during the workshop and presented to participants are not shown as additions or deletions.

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Item 11(a) of the provisional agenda
**Methodological issues under the Convention**
**Work programme on the revision of the guidelines for the review of biennial reports and national communications, including national inventory reviews, for developed country Parties**

# Draft revised guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention

## Note by the secretariat

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its thirty-seventh session, agreed on the work programme on the revision of the guidelines for the review of biennial reports and national communications, including national inventory reviews, for developed country Parties.[1] The Conference of the Parties (COP) adopted, by decision 23/CP.19, the guidelines for the technical review of biennial reports and national communications by Parties included in Annex I to the Convention (Annex I Parties). The annex to that decision contains a placeholder for the guidelines for the technical review of greenhouse gas (GHG) inventories from Annex I Parties, to be further discussed at SBSTA 40, with a view to adopting a decision at COP 20.[2]

2. SBSTA 39 invited Parties to submit to the secretariat detailed views on the structure, outline, key elements, including the purpose and scope of the review, timing and reporting, and content of the guidelines for the technical review of GHG inventories from Annex I Parties. It requested the secretariat to prepare a synthesis report[3] on those views and a draft of the revised guidelines[4] based on those submissions,[5] as input to the second technical

[1] FCCC/SBSTA/2012/5, paragraphs 74–85.
[2] FCCC/SBSTA/2013/3, paragraph 88(b).
[3] FCCC/SBSTA/2014/INF.3.
[4] FCCC/SBSTA/2014/INF.4.
[5] The submissions received are available at <http://unfccc.int/documentation/submissions_from_parties/items/5901.php>.

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workshop (held from 8 to 10 April 2014 in Bonn, Germany) under the work programme referred to in paragraph 1 above.[6]

3. The annex contains the draft revised guidelines for the technical review of GHG inventories from Annex I Parties, as well as the guidelines for the technical review of biennial reports and national communications adopted by the COP by decision 23/CP.19. The draft text shows the additions and deletions made during the workshop referred to in paragraph 2 above.[7] Additions are shown as double-underlined text and deletions as double-strikethrough text. Square brackets are used around text still under discussion. "Placeholders" indicate that a certain issue needs further attention and that text on that issue may need to be inserted. Highlighted paragraph references need to be reviewed for correctness. "Notes" provide a rationale for the proposed change. "Options" are different proposals for a sentence, paragraph or chapter.

4. The draft revised guidelines for the technical review of GHG inventories from Annex I Parties contained in the annex, together with the workshop report,[8] will be submitted to SBSTA 40 for further consideration.

[6] FCCC/SBSTA/2013/5, paragraph 68.

[7] Minor structural changes made during the workshop and presented to participants do not appear as tracked changes.

[8] FCCC/SBSTA/2014/INF.9.

## Annex

# Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention[1]

## PART I: STRUCTURE OF THE REVIEW GUIDELINES

1. The UNFCCC guidelines for review of annual inventories are composed of Part II and Part III of these guidelines.

2. The UNFCCC guidelines for review of biennial reports are composed of Part II and Part IV of these guidelines.

3. The UNFCCC guidelines for review of national communications are composed of Part II and Part V of these guidelines.

## PART II: GENERAL APPROACH TO THE REVIEW

### A. Applicability

4. Information provided by Parties included in Annex I to the Convention (Annex I Parties) in their greenhouse gas (GHG) inventories, biennial reports (BRs) and national communications (NCs) will be subject to reviews pursuant to relevant decisions of the Conference of the Parties (COP), in accordance with the provisions of these guidelines.

### B. Objectives

5. The objectives of the review of information reported under the Convention related to GHG inventories, BRs and NCs and pursuant to relevant decisions of the COP are the following:

(a) To provide, in a facilitative, non-confrontational, open and transparent manner, a thorough, objective and comprehensive technical review of all aspects of the implementation of the Convention by individual Annex I Parties and Annex I Parties as a whole;

(b) To promote the provision of consistent, transparent, comparable, accurate and complete information by Annex I Parties;

(c) To assist Annex I Parties in improving their reporting of information contained in GHG inventories, BRs and NCs and pursuant to other relevant decisions of the COP and the implementation of their commitments under the Convention;

(d) To ensure that the COP has accurate, consistent and relevant information in order to review the implementation of the Convention.

6. The objectives of the review guidelines are to promote consistency, comparability and transparency in the review of information reported under the Convention related to GHG inventories, BRs and NCs.

[1] Secretariat note: paragraphs 1–57 and 121–148 were agreed by the Conference of the Parties by decision 23/CP.19. The corresponding paragraphs in the annex to that decision are 1–57 and 58–85.

### C. General approach

7. The provisions of these guidelines will apply to the review of information reported under the Convention related to GHG inventories, BRs and NCs and pursuant to relevant decisions of the COP.

8. Specific provisions for the review of GHG inventories, NCs and BRs are included in specific parts of these review guidelines.

9. The same information submitted by an Annex I Party in its BR, NC and GHG inventory will be reviewed only once, by an expert review team (ERT).

10. The ERTs shall provide a thorough and comprehensive technical review of all aspects of the implementation of the Convention by Annex I Parties and shall identify any potential issues referred to in paragraphs **XX** (inventory section), **64** and **78** below. The ERTs shall conduct technical reviews to provide information expeditiously to the COP in accordance with the procedures detailed in these guidelines.

11. At any stage in the review process, the ERTs may put questions to, or request additional or clarifying information from, the Annex I Parties under review regarding identified issues. The ERTs should offer suggestions and advice to those Annex I Parties on how to resolve such issues, taking into account the national circumstances of the Party under review. The ERTs shall also provide technical advice to the COP or the Subsidiary Body for Implementation (SBI), upon request.

12. The Annex I Parties under review should provide the ERTs with access to the information necessary to substantiate and clarify the implementation of their commitments under the Convention, in accordance with the relevant reporting guidelines adopted by the COP, and, during in-country visits, should also provide appropriate working facilities. The Parties should make every reasonable effort to respond to all questions and requests of the ERTs for additional clarifying information.

#### Confidentiality

13. In response to a request from the ERT for additional data or information, or access to data used in the preparation of the GHG inventory, BR and NC reports, an Annex I Party may indicate whether such information or data are confidential. In such a case, the Party should provide the basis for protecting such information, including any domestic law, and, upon receipt of assurance that the data will be maintained as confidential by the ERT, will submit the confidential data in accordance with domestic law and in a manner that allows the ERT access to sufficient information or data for the assessment of the implementation of the commitments under the Convention by Annex I Parties and the conformity with the relevant methodological guidance as agreed by the COP. Any confidential information or data submitted by a Party in accordance with this paragraph shall be maintained as confidential by the ERT, in accordance with any decisions on this matter adopted by the COP.

14. An ERT member's obligation not to disclose confidential information and data submitted by a Party in accordance with paragraph 13 above shall continue after the termination of his or her service on the ERT.

## D. Timing and procedures

### I. Review of greenhouse gas inventories[2]

15. Each GHG inventory submitted under the Convention by an Annex I Party will be subject to review, in accordance with part II and part III of these guidelines.

### II. Review of biennial reports

16. Each BR submitted under the Convention by an Annex I Party will be subject to a review by an ERT, in accordance with part II and part IV of these guidelines.

17. The ERTs shall make every effort to complete the individual review of BRs within 15 months of the due date of their submission for each Annex I Party.

18. In the years when NCs and BRs are submitted together, both the NC and BR will be subject to an in-country review.

19. In the years when the BR is not reported in conjunction with the NC, the BR shall be subject to a centralized review. However, the ERT, based on the findings of the review,[3] can recommend that the next review be an in-country review and, upon a Party's request, the secretariat shall organize an in-country review for that Party.

20. The secretariat, where appropriate, may consider other UNFCCC review processes when coordinating BR and NC reviews, in particular with a view to addressing the need to improve the cost-effectiveness of the review process and national circumstances.

### III. Review of national communications

21. The ERTs shall make every effort to complete the individual review of NCs within 15 months of the due date of their submission for each Annex I Party.

22. Each NC submitted under the Convention by an Annex I Party shall be subject to a scheduled in-country review by an ERT, in accordance with part II and part V of these guidelines.

23. The secretariat, where appropriate, shall consider other UNFCCC review processes when coordinating BR and NC reviews, in particular with a view to addressing the need to improve the cost-effectiveness of the review process and national circumstances.

## E. Expert review teams and institutional arrangements

### I. Expert review teams

24. Each submission of information reported under the Convention related to GHG inventories, BRs and NCs and pursuant to relevant decisions of the COP shall be assigned to a single ERT, which shall be responsible for performing the review thereof in accordance with the procedures and time frames established in these guidelines. The submissions of an Annex I Party shall not be reviewed in two successive reviews by an ERT with identical composition.

25. Each ERT shall provide a thorough and comprehensive technical review of the information reported under the Convention related to GHG inventories, BRs and NCs and pursuant to relevant decisions of the COP and shall, under its collective responsibility, prepare a review report, assessing the implementation of the commitments of the Annex I

[2] Placeholder for paragraphs XX–XX on the UNFCCC guidelines for review of annual inventories.
[3] The findings from the ERT are related to issues indicated in paragraph 65.

Party and identifying any potential issues referred to in paragraphs XX (GHG inventory section), 64 and 78 below. The ERTs shall refrain from making any political judgement.

26. The ERTs shall be coordinated by the secretariat and shall be composed of experts selected on an ad hoc basis from the UNFCCC roster of experts and shall include lead reviewers. The ERTs formed to carry out the tasks under the provisions of these guidelines may vary in size and composition, taking into account the national circumstances of the Party under review, the format of the review, the number of reports and the different needs for expertise for each review task. Additional experts may be added to a review team where necessary.

27. Participating experts shall serve in their personal capacity.

28. Experts shall be nominated by Parties to the Convention to the UNFCCC roster of experts and, as appropriate, by intergovernmental organizations.

29. Participating experts shall have recognized competence in the areas to be reviewed in accordance with these guidelines. The training to be provided to the experts, and the subsequent assessment after the completion of the training[4] and/or any other means needed to ensure the necessary competence of the experts for their participation in ERTs, shall be designed and operationalized by the secretariat in accordance with relevant decisions of the COP.

30. Experts selected for a specific review activity shall neither be nationals of the Party under review nor be nominated or funded by that Party.

31. Participating experts from Parties not included in Annex I to the Convention (non-Annex I Parties) and Annex I Parties with economies in transition shall be funded according to the existing procedures for participation in UNFCCC activities. Experts from other Annex I Parties shall be funded by their governments.

32. In conducting reviews, the ERTs shall adhere to these guidelines and work on the basis of established and published procedures agreed upon by the COP and the Subsidiary Body for Scientific and Technological Advice (SBSTA), including quality assurance and control and confidentiality provisions.

## II. Competences of the expert review teams

33. The competences required to be a member of an ERT for the technical review of GHG inventories are in the areas to be covered in part III of these guidelines.<<placeholder: add reference to paragraph 29 or add text>>

34. The competences required to be a member of an ERT for the technical review of BRs are in the areas referred to in paragraph 59(c) in part IV of these guidelines.

35. The competences required to be a member of an ERT for the technical review of NCs are in the areas referred to in paragraph 77(c) below in part V of these guidelines.

## III. Composition of the expert review teams

36. The secretariat shall select the members of the ERTs to review the GHG inventories, BRs and NCs submitted under the Convention and pursuant to relevant decisions of the COP in such a way that the collective skills and competencies of the ERTs address the areas mentioned in paragraphs 33, 34 and 35 above, respectively.

[4] The experts that opt not to participate in the training have to undergo a similar assessment successfully to enable them to qualify for participation in ERTs.

37. The secretariat shall select the members of the ERTs with a view to achieving a balance between experts from Annex I and non-Annex I Parties in the overall composition of the ERTs, without compromising the selection criteria referred to in paragraph 36 above. The secretariat shall make every effort to ensure geographical balance among the experts selected from non-Annex I Parties and among those selected from Annex I Parties.

38. The secretariat shall ensure that in any ERT one co-lead reviewer shall be from an Annex I Party and one from a non-Annex I Party.

39. Without compromising the selection criteria referred to in paragraphs 33, 34 and 35 above, the formation of ERTs should ensure, to the extent possible, that at least one member is fluent in the language of the Party under review.

40. The secretariat shall prepare an annual report to the SBSTA on the composition of ERTs, including the selection of experts for the review teams and the lead reviewers, and on the actions taken to ensure the application of the selection criteria referred to in paragraphs 36 and 37 above.

## IV. Lead reviewers

41. Lead reviewers shall act as co-lead reviewers for the ERTs in accordance with these guidelines.

42. Lead reviewers should ensure that the reviews in which they participate are performed by each ERT according to the relevant review guidelines and consistently across Parties. They should also ensure the quality and objectivity of the thorough and comprehensive technical examinations in the reviews and provide for the continuity, comparability and timeliness of the reviews.

43. With the administrative support of the secretariat, lead reviewers shall, for each review:

(a) Ensure that the reviewers have all of the necessary information provided by the secretariat prior to the review;

(b) Monitor the progress of the review;

(c) Coordinate the submission of queries of the ERT to the Party under review and coordinate the inclusion of the answers in the review report;

(d) Provide technical advice to the members of the ERT, if needed;

(e) Ensure that the review is performed and the review report is prepared in accordance with these guidelines;

(f) Ensure that the ERT gives priority to issues raised in previous review reports.

44. Lead reviewers shall also collectively prepare an annual report to the SBSTA as part of the annual report referred to in paragraph 40 above, containing suggestions on how to improve the quality, efficiency and consistency of the reviews in the light of paragraph 5 above of these guidelines.

## V. Ad hoc review experts

45. Ad hoc review experts shall be selected by the secretariat from those nominated by Parties or, exceptionally and only when the required expertise for the task is not available among them, from those nominated by relevant intergovernmental organizations belonging to the UNFCCC roster of experts for specific reviews. They shall perform individual review tasks in accordance with the duties set out in their nomination.

46. Review experts shall, as necessary, perform desk review tasks in their home countries and participate in in-country visits and centralized reviews.

VI. Role of the secretariat

47. The secretariat shall organize the reviews, including the preparation of a schedule for the review, the coordination of the practical arrangements concerning the review and the provision of all relevant reported information to the ERT concerned.

48. The secretariat shall develop review tools and materials and templates for review reports under the guidance of the lead reviewers.

49. The secretariat shall coordinate, together with the lead reviewers, the communication during the review between the ERT concerned and the Party under review and shall maintain a record of communications between ERTs and Parties.

50. . The secretariat, together with the lead reviewers, shall compile and edit the final review reports.

51. The secretariat shall facilitate annual meetings of the lead reviewers for GHG inventories, BRs and NCs. It shall summarize information on issues raised in the reviews to facilitate the work of lead reviewers in fulfilling their task to ensure consistency in the reviews across Parties.

52. The secretariat shall design and implement training activities for review experts, including lead reviewers, and the subsequent assessment of the experts' qualifications, under the guidance of the SBSTA (see para. 29 above).

VII. Guidance provided by the Subsidiary Body for Scientific and Technological Advice

53. The SBSTA shall provide general guidance to the secretariat on the selection of experts and the coordination of the ERTs, and to the ERTs on the expert review process. The reports mentioned in paragraphs 40 and 44 above are intended to provide the SBSTA with inputs for elaborating such guidance.

## F. Reporting and publication

54. The ERTs shall, under their collective responsibility, produce review reports. The review of the same information (see para. 7 above) shall be reflected in one report only. The following review reports should be produced for each Annex I Party:

(a) For the review of GHG inventories, a final report on the review of the GHG inventory, in accordance with part II and part III of these guidelines;

(b) For the review of BRs, a technical report on the review of the BR, in accordance with part II and part IV of these guidelines;

(c) For the review of NCs, a report on the review of the NC, in accordance with part II and part V of these guidelines.

55. The review reports for each Annex I Party shall follow a format and outline comparable to that set out in paragraph 56 below and shall include the specific elements described in parts III–V of these guidelines.

56. All review reports prepared by ERTs shall include the following elements:

(a) An introduction and a summary;

(b) A description of the technical review of each of the elements reviewed according to the relevant sections on the scope of the review detailed in parts III–V of these guidelines, including:

(i) A description of any potential issues identified in accordance with paragraphs XX, 64 and 78 below;

(ii) Any suggestions provided by the ERT to resolve the potential issues;

(iii) An assessment of any efforts made by the Annex I Party under review to address any potential issues identified by the ERT during the current review or during previous reviews that have not been addressed;

(iv) The sources of information used in the formulation of the final report.

57. Following their completion, all review reports shall be published and forwarded by the secretariat, together with a written comment on the final review report made by the Party under review, to the Party concerned, the COP and the subsidiary bodies, as appropriate, following these guidelines.

## PART III: UNFCCC Guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention

### A. Purpose of the review

58. The purpose of the technical review of Annex I Parties' GHG inventories is:

(a) To ensure that the Conference of the Parties (COP) has adequate and reliable information on annual inventories and emission trends of anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol;

(b) To provide the COP with an objective, consistent, transparent, thorough and comprehensive technical assessment of the annual quantitative and qualitative inventory information submitted by Annex I Parties, and a technical assessment of the implementation of Annex I Parties' commitments under Article 4, paragraph 1 (a), and Article 12, paragraph 1 (a), of the Convention;

(c) To examine, in a facilitative and open manner, the reported inventory information for consistency with the "Guidelines for the preparation of national communications by Annex I Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories (decision 24/CP.19)" [hereinafter referred to as the UNFCCC Annex I [inventory] reporting guidelines [on annual inventories]][5], the Intergovernmental Panel on Climate Change (IPCC) 2006 Guidelines for National Greenhouse Gas Inventories (hereinafter referred to as the 2006 IPCC Guidelines) and, if applied, the 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands (hereinafter referred to as the Wetlands Supplement) and any additional ~~guidelines~~guidance adopted by the COP.

(d) To assist Annex I Parties in improving the quality of their GHG inventories.

(e) [To [inform and] complement [and enhance] the review of biennial reports and national communications.]

### B. General procedures

59. The [annual technical] review shall cover the annual inventory, including national inventory report (NIR) and the common reporting format (CRF) tables, for all Annex I Parties ~~Greenhouse gas inventory submissions from all Annex I Parties will be subject to an~~

[5] Note by the secretariat: these guidelines are referred to as "UNFCCC Annex I inventory reporting guidelines" in decision 24/CP.19.

~~annual technical review that should cover the national inventory report (NIR) and the common reporting format (CRF).~~

60. **Option 1.**: The [annual] technical review process comprises three stages which consider different aspects of the inventories in such a way that all of the purposes described above are achieved by the end of the process. The three stages are:

(a) Initial check of annual inventories;

(b) Synthesis and assessment of annual inventories;

(c) [Biennial] Review of individual annual inventories.

**Option 2.** : The [annual technical] inventory review shall consist of two stages which consider different aspects of the inventories in such a way that all of the purposes described above are achieved by the end of the process. The two stages are:

(a) Standardized checks prepared by the Secretariat, supported by a group of experienced review experts from different sectors;

(b) An individual inventory review by the expert review team.

61. **Option 1.** The initial check of annual inventories (stage 1) and the synthesis and assessment of annual inventories (stage 2) will be conducted annually. The review of individual annual inventories by expert review teams (stage 3) will be conducted biennially beginning in 2015.

(a) **Sub-option a**: The review of individual annual inventories by expert review teams (stage 3) will be conducted in years that a Party's inventory is not reviewed by an expert review team during a review of the biennial report or national communication. The ERT, based on the findings of the review, can recommend that the next year's review also incorporate all three stages of inventory review.

(b) **Sub-option b**: The individual inventory reviews (stage 3) should be distributed between years in such a way that approximately half of the Parties are reviewed one year and half of the Parties are reviewed in the next. The ERT, based on the findings of the review, can recommend that the next year's review also incorporate all three stages of inventory review.

**Option 2.** All stages of the review will happen annually.

62. The stages of the technical review process complement each other so that, in general, for each Annex I Party, one stage is concluded before the next one is undertaken.

63. Three operational approaches may be used during the last stage of the technical review, namely desk reviews[6], centralized reviews and in-country reviews, assuming available resources. During a desk review, inventory information of Annex I Parties will be sent to experts, who will conduct the review in their own countries. [Desk reviews shall not be conducted except on exceptional circumstances at the discretion of the secretariat including when facing difficulties and/or resource limitations.] During a centralized review, the experts will meet in a single location to review the inventory information of Annex I Parties. [Other options with more sectoral experts in one team and a more targeted focus of individual experts on specific source categories but a larger number of countries under

[6] Secretariat note: In its submission, one Party does not refer to the use of the desk review. Other Parties retain this as an option, relying on the use of desk reviews to varying degrees. Reference to the desk review has been retained in the text, but in considering the legal text, Parties should be reminded that one Party has not reflected this option in its submission.

review should be explored and experiences discussed at the lead reviewer meeting.] During an in-country review, experts will visit an Annex I Party to review the inventory information of this Party.

64. [The review of most individual inventories of Annex I Parties will be conducted annually as a desk review or as a centralized review] [The review of the majority of the individual inventories will be conducted as centralized reviews, and the remaining as in-country]. In addition, the GHG inventory of each Annex I Party will be subject to an in-country visit by an expert review team at least once every [four][five][eight] years. In a year when an in-country review is scheduled, a desk or centralized review of the Party's GHG inventory will not take place. In-country visits will be scheduled, planned and take place with the consent of, and close coordination with, the Party subject to review. In general, during a centralized review, up to ~~[four][five]~~ GHG inventories should be reviewed; during a desk review up to [two][four]~~[five]~~[eight] GHG inventories should be reviewed. In circumstances where a individual member of an ERT is unable to attend the centralized or in-country review, that member may contribute to that review from his/her desk. [The secretariat edits and formats the report and sends to the respective Annex I Party for comments.]

65. At all stages of the inventory review process, individual Annex I Parties under review will have the opportunity to clarify issues or provide additional information. The secretariat will send to these Annex I Parties drafts of the results of the [standardized checks][initial check and S&A] and provisional main findings <<<check consistency with para. 118>>> ~~a preliminary analysis~~ of the respective Party's inventory, and their individual inventory review report. Every effort will be made to reach agreement with each Party on the content of a report prior to its publication. The ERT shall produce the final version of the review report, taking into account the comments of the Annex I Party. In the case of a Party and the expert team being unable to agree on an issue, the Party may provide explanatory text to be included in a separate section of the report. All final review reports shall be published and forwarded by the secretariat, together with a any written comments on the final review report by the Party that is the subject of the report, to the COP.

### C. Scope of the review

**Option 1. Initial check and S&A**

#### I. Initial check of annual inventories

66. The secretariat shall conduct annually an initial check of the annual GHG inventory submissions from Annex I Parties to examine that each Party has submitted a consistent, complete and timely annual inventory, including the national inventory report and the common reporting format (CRF), and that data contained in the CRF are complete by means of computerized analysis and to identify issues to enable subsequent review stages to take place.

67. The initial check will cover the national inventory submission, in particular, the data submitted electronically in the common reporting format (CRF), and will determine:

(a) Whether all mandatory sources, sinks and gases included in the UNFCCC Annex I inventory reporting guidelines~~, the 2006 IPCC Guidelines and, if applied, the 2013 Wetlands Supplement~~, as well as any additional guidance adopted by the COP are reported;

(b) A Party included in Annex I has failed to submit an annual inventory or the national inventory report or the common reporting format by the due date, or within six weeks of the due date;

(c) Whether all tables of the CRF have been completed and any gaps have been explained in the CRF by use of notation keys (such as NE, NA, NO, IE, C)[7], in line with the UNFCCC Annex I inventory reporting guidelines[, and whether there is frequent use of these notation keys];

(d) ~~Whether estimates for summary totals and individual categories are provided in mass units and in terms of $CO_2$ equivalent using the IPCC global warming potential (GWP) values in accordance with the relevant decisions of the COP;~~ <<Note: In the new CRF Reporter estimates are entered in mass units and the conversion to CO2 equivalent are done automatically>>

(e) Whether emission estimates are provided for all required years (i.e., from the base year to the latest year in the current submission);[8]

(f) Whether methodologies are indicated with notations in the CRF;

(g) Whether estimates for $CO_2$ emissions from fossil fuel combustion are reported using the IPCC reference approach in addition to estimates derived using a sectoral approach;

(h) ~~Whether emission estimates for hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride are reported by individual chemical species;~~ <<Note: The new CRF Reporter includes columns for individual chemical species in which estimates or notation keys can be added>>

(i) Whether any recalculations are reported for the entire time series and explanatory information relating to these recalculations is provided in the NIR~~CRF~~;

(j) [Whether all emissions are reported without adjustments relating, for example, to climate variations or trade of electricity;]

(k) Whether emissions from fuel used in international transportation are reported separately from national totals;

(l) ~~Whether key categories have been reported in the CRF as required by the reporting guidelines;~~ <<Note: New CRF Reporter performs the key category analysis automatically using IPCC approach 1>>

(m) Whether the tables on uncertainties have been reported as required by the UNFCCC reporting guidelines;

**<<Note: paragraphs in FCCC/SBSTA/INF.4 (68-70 were were removed because they are not part of option 1 (but of option 2 below)>>**

## II. Synthesis and assessment of annual inventories

71. The secretariat will conduct a synthesis and assessment of Annex I Parties' greenhouse gas inventories to facilitate the consideration of inventory data and other information across Annex I Parties ~~**[Option 1]**~~, and to identify issues for further consideration during the review of individual inventories. ~~**[Option 2]**~~ Biennially the synthesis and assessment will identify issues for further consideration during the review of individual inventories by expert review teams.

[7] NE = not estimated, NA = not applicable, NO = not occurring, IE = included elsewhere, C = confidential.

[8] In accordance with the reporting guidelines, if there are no changes in the previously submitted inventories, the national inventory report (NIR) should reference the inventory submission where the other years constitute the time series.

72. The synthesis and assessment will cover the national inventory submission and previous national inventory submissions, where relevant, and will include a standardized set of data comparisons of:

(a) Implied emission factors and other inventory data across Annex I Parties to identify any irregularities or inconsistencies;

(b) Emission or removal estimates, activity data, implied emission factors and any recalculations with data from previous submissions to identify any irregularities or inconsistencies;

(c) Activity data of each Annex I Party with relevant authoritative sources, if feasible, as agreed by the lead reviewer meeting, to identify cases where there are significant differences.

73. To facilitate the analysis of the inventory data, the secretariat shall, for each individual Annex I Party, ~~identify and~~ consider those categories that are key categories for the base year and the latest reported inventory year, both in terms of their absolute level and in terms of their trend assessment, using approach 1 as described in the 2006 IPCC Guidelines, including and excluding LULUCF. In addition, the secretariat should consider non-key categories for which irregularities or inconsistencies are identified, based on ~~their~~ these non-key categories' ~~significance~~relevance for specific sectors or for the whole GHG inventory.

**End of option 1**

**Option 2.Standardized checks**

66. The secretariat shall conduct standardized checks to examine that each Party included in Annex I has submitted a consistent, complete and timely annual inventory, including the national inventory report and the common reporting format (CRF), and that data contained in the CRF are complete by means of computerized analysis and to identify issues for further consideration during the review of individual inventories.

**67.** The checks shall include a standardized set of data comparisons mainly based on the CRF data and identify whether:

(a) The submission is complete in terms of whether an NIR and all CRF tables were submitted and whether all mandatory sources, sinks and gases included in the UNFCCC Annex I inventory reporting guidelines~~, the 2006 IPCC Guidelines and, if applied, the 2013 Wetlands Supplement~~, as well as any additional guidance adopted by the COP are reported;

(b) A Party included in Annex I has failed to submit an annual inventory or the national inventory report or the common reporting format by the due date, or within six weeks of the due date;

(c) Whether all tables of the CRF have been completed and any gaps have been explained in the CRF by use of notation keys (such as NE, NA, NO, IE, C)[9], in line with the UNFCCC Annex I inventory reporting guidelines[, and whether there is frequent use of these notation keys];

(d) ~~Whether estimates for summary totals and individual categories are provided in mass units and in terms of $CO_2$ equivalent using the IPCC global warming potential (GWP) values in accordance with the relevant decisions of the COP;~~

[9] NE = not estimated, NA = not applicable, NO = not occurring, IE = included elsewhere, C = confidential.

(e) Whether estimates for $CO_2$ emissions from fossil fuel combustion are reported using the IPCC reference approach in addition to estimates derived using a sectoral approach;

(f) ~~Whether emission estimates for hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride are reported by individual chemical species;~~

(g) Whether any recalculations are reported for the entire time series and explanatory information relating to these recalculations is provided in the NIR~~CRF~~;

(h) Whether a~~A~~ny significant irregularities or inconsistencies can be identified in implied emission factors and other inventory data across Annex I Parties and compared to data of previous years or from previous submissions;

(i) Whether ~~A~~any irregularities or inconsistencies with the recalculations can be identified for recalculations that exceed 2 per cent for individual categories and/or 0.5 per cent of national total emissions;

(j) Whether ~~T~~there are significant differences of activity data compared to activity data from other relevant authoritative sources, if available, as agreed by the lead reviewer meeting,[, taking into consideration the methodological approach [used by the Party]];

(k) Whether ~~T~~there are issues within source or sink categories requiring further consideration or clarification during the individual review stage taking into account responses from previous reviews or recommendations provided in previous reviews.

68. The secretariat shall develop and implement the standardized checks based on the requirements in paragraph 67 above and the past experiences with the initial checks and the synthesis and assessment of the reviews. A group of experienced review experts should be selected among the lead reviewers with the tasks to explore additional standardized checks and to consider whether the checks implemented remain useful over time. Such assessment with the support of experienced review experts should take place every five years and the result of it should be considered at the following meeting of the lead reviewers.

69. The secretariat shall compare any findings from the standardized checks specific to individual Annex I Parties with findings and responses from Parties from previous reviews. For this purpose, a communication tool with findings and responses from Parties should be developed and maintained that registers findings from the standardized checks and questions from ERTs together with responses from Parties over time. The ERTs should have access to past exchange between Parties and reviewers via this tool.

70. The secretariat shall immediately notify the Party concerned of any omissions or problems identified with a Party's submission that prevent the performance of the standardized check.

**END OF OPTION 2**

III. Review of individual annual inventories

**<<General principles>>**

74. [Biennially] [E][e]xpert review teams, coordinated by the secretariat, shall conduct reviews of individual greenhouse gas inventories in order to assess whether the COP has adequate and reliable information on annual GHG inventories. The individual reviews conducted under these review guidelines shall provide for a detailed examination of the inventory estimates, procedures and methodologies used in the preparation of inventories, national inventory arrangements and inventory planning, preparation and management functions implemented, and QA/QC procedures implemented)

75. The individual inventory review shall cover each Annex I Party's national inventory, supplementary material submitted by the Party and ~~[[**Option 1**, …, as appropriate, previous inventory submissions. [**Option 2**, …~~, if necessary for the review of recalculations and inventory improvements, previous inventory submissions~~]]~~. ~~The individual reviews conducted by expert review teams under these guidelines will complement and enhance the reviews of inventories conducted by expert review teams under the review of biennial reports and national communications.~~ The results of this stage of the review process will be communicated to Annex I Parties.

76. ~~[Opt.A~~ Expert review teams ~~should~~ shall pay particular attention to key categories, those areas of the inventory where [problems][issues][recommendations] have been identified in previous reviews, or stages of the review, progress in the implementation of the planned improvements, or where changes have been reported by the Party. Clear priority shall be given to issues that have an impact on the level and/or trend of total national GHG emissions and removals.~~]~~
~~[Opt.B Expert review teams shall pay particular attention to key categories, recommendations made in previous review reports, progress in the implementation of the improvement plan, issues which have been identified in previous reviews, or stages of the review, and categories where changes have been reported by the Party. Clear priority shall be given to factors that have an impact on the level and/or trend of total national GHG emissions and removals]~~
Expert review teams should not perform an individual review in cases where a NIR has not been provided.

77. ~~The assessment in the individual inventory review shall focus on a Parties' key categories.~~ The expert review teams shall focus on significant [problems][issues] that would represent significant under- or overestimations of emissions and removals the greenhouse gas inventories beyond the thresholds used in paragraph 37 (b) of decision 24/CP.19. In their assessment the expert review teams shall also take into account the amount of efforts and resources required for an improvement ~~[related]~~[relative~~]~~ to the significance of the [problem][issue] in terms of over- or underestimation of emissions.

78. ~~Taking into account available resources, for the purpose of review of national GHG inventories, three operational approaches may be used during this stage of the individual review:~~

(a) ~~Desk review: During a desk review, inventory information of Annex I Parties shall be sent to experts, who will conduct the review in their own countries. The option of a desk review represents a contingency operational approach for the secretariat to consider when difficulties and resource limitations are encountered. During a desk review up to [two][eight] GHG inventories should be reviewed per expert review team with a team larger than during the centralized review and a stronger focus of the expertise of individual sector experts;~~

(b) ~~Centralized review: During a centralized review, the experts shall meet in a single location during one week to review the inventory information of Annex I Parties after examining the review materials prior to the meeting. During a centralized review, up to [four][five] GHG inventories should be reviewed per expert review team. Other options with more sectoral experts in one team and a more targeted focus of individual experts on specific source categories but a larger number of countries under review should be explored and experiences discussed at the lead review or meeting;~~

(c) ~~In-country review: During an in-country review, experts shall visit an Annex I Party to review the inventory information of this Party during one week.~~

**<<annual versus biennial>>**

79. **Option 1**. The annual review of most individual inventories of Annex I Parties will alternate between in-country review and centralized or desk reviews, so that the GHG inventory of each Annex I Party will be subject to an in-country visit by an expert review team once every [four][five] years. In-country visits will be scheduled, planned and take place with the consent of, and close coordination with, the Party subject to review

**Option 2~~1~~**. The biennial review of most individual inventories of Annex I Parties will alternate between in-country review and centralized or desk reviews, so that the GHG inventory of each Annex I Party will be subject to an in-country visit by an expert review team once every [four][five] years. In-country visits will be scheduled, planned and take place with the consent of, and close coordination with, the Party subject to review.

**Option 3~~2~~.** The review of the inventories of Annex I Parties shall be conducted annually. Every other year the review shall take place as a desk review and every other year as a centralized review. In addition, the GHG inventory of each Annex I Party shall be subject to an in-country review by an expert review team once every [eight][five] years. In a year when an in-country review is scheduled, a desk or centralized review of the Party's GHG inventory shall not take place. In-country visits shall be scheduled, planned and take place with the consent of, and in close coordination with, the Party subject to review. The scope of the individual review differs between years with desk reviews and years with centralised reviews as defined in paragraph ~~X~~ 87 and ~~X~~ 88 below.

80. <<Format>> If during the past three reviews, no [corrections of any inventory estimates were triggered] [significant issues were identified] by the ERT for a Party and if the standardized checks did not result in any significant issues for that Party, the annual individual reviews shall take place as desk reviews as defined in paragraph ~~X~~78a above, except for the in-country reviews every eight years as defined in paragraph ~~X~~78c above, unless the Party requests a centralized or in-country review. [Any subsequent issues identified will result in the review process reversion to the 'standard' process.]

81. <<Format>> [An expert review team can [request][recommend that the next review be] an in-country review if it believes, based on the findings of the review ~~centralized review or the desk review~~ that such a review is necessary to allow for a fuller investigation of [a problem][an issue] that the team has identified, subject to the consent of the Party included in Annex I. The expert review team shall provide a rationale for the additional in-country review and shall compile a list of questions and issues to be addressed during the in-country review to be sent to the Party included in Annex I in advance of the visit. [The secretariat shall try to accommodate the request taking into consideration in-country reviews planned in accordance with paragraph 79 above and the availability of resources for the reviews.] The in-country review shall then be scheduled for the year following the review that recommended such visit. If such an in-country review occurs, the expert review team may recommend that a pending scheduled in-country review is not necessary.]

82. <<Format>> [A Party included in Annex I can request an in-country review. The request for an in-country review shall be submitted to the secretariat no later than the submission due date. Following a request by a Party included in Annex I, the secretariat shall try to accommodate the request taking into consideration in-country reviews planned in accordance with paragraph ~~X 81~~ 79 above and the availability of resources for the reviews. ]

83. <<General>> The secretariat, where appropriate, [may][shall] consider other UNFCCC review processes when coordinating ~~inventory reviews~~ reviews of annual inventories, in particular with a view to addressing the need to improve the cost-effectiveness of the review process and national circumstances.

84. <<General>> In addition to the tasks mentioned in paragraph ~~21-90~~ 88 below, expert review teams conducting in-country reviews will consider the "paper trail" of the inventory from the collection of data to the reported emission estimates and will examine procedures and institutional arrangements for inventory development and management, including quality assurance and quality control, record-keeping and documentation procedures. During subsequent ~~centralized or desk~~ reviews, the expert review teams will identify any changes that may have occurred in these procedures and institutional arrangements, based on the information provided in the NIRs of Annex I Parties.

**<<Tasks of the review>>**

**Option 1**

85. Each expert review team will:

(a) Examine application of the requirements of the UNFCCC Annex I inventory reporting guidelines, the 2006 IPCC Guidelines and, if applied, the wetlands supplement and relevant COP decisions, and identify any departure from these requirements;

(b) Examine whether the 2006 IPCC Guidelines and, if applied, the wetlands supplement, was applied and documented, in particular noting the identification of key categories, selection and use of methodologies and assumptions, development and selection of emission factors, collection and selection of activity data, reporting of recalculations and consistent time-series, reporting of uncertainties related to inventory estimates, methodologies used for estimating those uncertainties and quality assurance and quality control procedures, and identify any inconsistencies;

(c) Compare emission or removal estimates, activity data, implied emission factors and any recalculations with data from previous submissions of the Annex I Party to identify any irregularities or inconsistencies;

(d) Identify any missing categories and examine any explanatory information relating to their exclusion from the GHG inventory;

(e) [Identify the reason for any differences between the Party's and the reporting software's ~~secretariat's~~ key category determination;]

(f) [Assess the consistency of information in the CRF with that in the NIR;]

(g) Assess the extent to which issues raised in the synthesis and assessment of annual inventories, and issues and questions raised by expert review teams in previous reports, have been addressed and resolved. The ERT shall assess to what extent the Party's improvements or planned improvements incorporate recommendations from previous reviews;

(h) Identify areas for further improvement of the inventories and note possible ways for improving the estimation and the reporting of inventory information, taking national circumstances into consideration;

(i) Examine national inventory arrangements for the estimation of anthropogenic GHG emissions by sources and removals by sinks, including all institutional, legal and procedural arrangements for reporting and archiving inventory information within an Annex I Party[;

(j) Compare the activity data of the Annex I Party with relevant external authoritative sources, if feasible, and identify sources where there are significant differences[. In cases where significant differences are identified between the data sources, the ERT shall provide the Party with the data used to make their assessment where it is possible to do so.] [Recommendations based on the outcome of the data comparison should

not appear in the review report in cases where it is not possible to provide the data to the Party];

86. The expert review team may use relevant technical information in the review process, such as information from international organizations.

**End of option 1**

**Option 2**

87. During a desk review, the expert review team shall:

(a) Follow-up to the findings and responses from Parties to the standardized checks;

(b) Analyse any recalculations that have changed the emission/removal estimate for a category by more than two per cent and/or national total emissions by more than 0.5 per cent as provided in the CRF tables for any of the recalculated years and assess the reasons provided by the Party for the recalculations and improvements performed as well as the consistency of the revised estimates with the 2006 IPCC guidelines;

(c) Assess the extent to which issues and questions raised by expert review teams in previous review reports have been addressed and resolved. The ERT shall assess to what extent the Party's improvements or planned improvements incorporate recommendations from previous reviews

88. During a centralised or in-country review, the expert review team shall, in addition to the tasks referred to in paragraph 87 above:

(a) Examine the application of the requirements of the 2006 IPCC Guidelines and the UNFCCC Annex I inventory reporting guidelines and relevant decisions of the COP, and identify any divergence from these requirements;

(b) Examine whether the good practice guidance provided by the 2006 IPCC guidelines adopted by the COP was applied and documented;

(c) Assess whether the national inventory arrangements are functioning and facilitating the continuous improvement of the GHG inventory and whether QA/QC procedures in accordance with the UNFCCC Annex I inventory reporting guidelines and the 2006 IPCC guidelines were implemented;

(d) Identify any missing categories and examine any explanatory information relating to their exclusion from the GHG inventory;

(e) Compare any recalculations and improvements submitted with data from previous submissions of the Party included in Annex I to identify the scope of the changes and assess the reasons provided by the Party for the recalculations and improvements performed as well as the consistency of the estimation methodologies ~~revised estimates~~ with the 2006 IPCC guidelines;

(f) Compare emission or removal estimates, activity data, implied emission factors across the time series submitted to identify any irregularities or inconsistencies;

(g) Compare the activity data of the Annex I Party with relevant external authoritative sources, as agreed by the lead reviewer meeting, and identify categories where there are significant differences which have not been explained by the Party[. In cases where significant differences are identified between the data sources, the ERT shall provide the Party with the data used to make their assessment where it is possible to do so.] [Recommendations based on the outcome of the data comparison should not appear in the review report in cases where it is not possible to provide the data to the Party];

(h) ~~Assess the extent to which issues and questions raised by expert review teams in previous review reports have been addressed and resolved;~~

(i) Assess whether key categories have been determined in accordance with the 2006 IPCC guidelines;

(j) Where applicable identify areas for further improvement of the inventories and note possible ways for improving the estimation and the reporting of inventory information;

(k) Where applicable, ~~identify~~ acknowledge areas where the Party has made efforts to implement higher-tier methodologies including disaggregated data, ~~and has used data sources that provide for inventory estimates of high accuracy, transparency, consistency and completeness~~.

**End of option 2**

89. <<General>> The secretariat shall support the individual review with the development of review tools and materials that support the tasks of the expert review teams in order to improve the efficiency and consistency of the reviews. Such tools and materials shall be periodically revised and updated taking into account the needs of review process. New and revised tools and materials shall be presented and discussed at the meetings of lead reviewers and shall also be presented in the annual report on the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention and shall be made available to Annex I Parties upon request. The meeting of lead reviewers should discuss which review tools should also be made available to the general public.

90. <<General>> If a Party included in Annex I fails to provide the expert review team with responses to the questions raised and does not provide the data and information necessary for the assessment of conformity with the 2006 IPCC Guidelines and any further guidance adopted by the COP, the expert review team shall assume that the estimate was not prepared in accordance with the 2006 IPCC Guidelines and any further guidance adopted by the COP and clearly identify such cases in the review report.

## IV. Identification of issues

91. The individual inventory review shall, when taking place as a desk, centralised or in-country review, identify any issues related to adherence to the UNFCCC Annex I inventory reporting guidelines.

92. Issues should be identified as a failure to follow mandatory requirements in the agreed UNFCCC Annex I inventory reporting guidelines for preparing greenhouse gas inventories. These may be further subdivided as issues of:

(a) Transparency, as defined in the UNFCCC Annex I inventory reporting guidelines ~~on annual inventories~~ (Decision 24/CP.19)[ [. For example, reviewers may consider the following][, including]:

(i) Inadequate documentation and description of methodologies, assumptions and models;

(ii) Failure to disaggregate national activity data, emission factors and other factors used in national methods at the required level unless an issue of confidentiality exists;

(iii) Failure to provide justifications for recalculations, references and/or information sources for key factors and data used;]

(b) Consistency, as defined in the UNFCCC Annex I inventory reporting guidelines ~~on annual inventories~~[, if different methodologies for different years have been

used including failure to provide information on how methods provided in the IPCC guidelines have been used to achieve time-series consistency;]

(c) Comparability, as defined in the UNFCCC Annex I inventory reporting guidelines ~~on annual inventories~~[, including failure to use agreed reporting formats];

(d) Completeness, as defined in the UNFCCC Annex I inventory reporting guidelines ~~on annual inventories~~[, including:

(i) Gaps in the inventory estimates for source categories or gases for which methods are provided in the IPCC Guidelines;

(ii) Inventory data that do not provide full geographic coverage of sources and sinks of a Party included in Annex I;

(iii) Failure to provide full coverage of sources in a source category];

(e) Accuracy, as defined in the UNFCCC Annex I inventory reporting guidelines ~~on annual inventories~~[, including failure to follow IPCC good practice guidance recommendations for key categories];

(f) Adherence to the UNFCCC Annex I inventory reporting guidelines ~~on annual inventories~~, per decision 24/CP.19.

93. In the assessment of completeness, the expert review team shall consider whether the emissions from a source category which was not estimated should be considered as insignificant in accordance with paragraph 37 (b) of the UNFCCC Annex I inventory reporting guidelines ~~for Annex I greenhouse gas inventories~~ and whether a disproportionate amount of effort would be required to collect data for the gas from a specific category with an insignificant contribution.

94. [When an expert review team identifies a potential significant [(in accordance with paragraph 37(b) of the UNFCCC Annex I inventory reporting guidelines ~~on annual inventories~~)] over- or underestimate of emissions/removals related to a mandatory requirement in the UNFCCC Annex I inventory reporting guidelines, the expert review team should summarize such identified potential significant over- or underestimations in a list of potential [problems][issues] at the end of the period in which the individual review is performed[, including a quantified assessment of the level of the potential over- or underestimation for the individual [problems][issues] if possible with the available information]. The Party should respond within six weeks to this list of potential [problems][issues], provide additional information, clarifications or corrections of individual estimates or explanations why the Party considers that the initial estimate is not an over- or underestimation, as appropriate. The expert review team shall also list and summarize the identified [problems][issues] in the review report if they have not been sufficiently clarified or corrected by the Party during the review, including a quantified assessment of the level of the potential over- or underestimation for the individual [problems][issues] and the sum of all such problems, if possible with the available information. The review report shall also list the corrections made by the Party during the review and include any explanations from Parties in case they disagree with identification of potential [problems][issues] of any technical corrections calculated by the ERT.]

## D. Timing

**Option 1**

### I. Status reports

95. The initial check for each Annex I Party should be finalized and the status report published on the UNFCCC web site within ~~[nine weeks from the submission due date to be~~

~~used in the individual inventory review]~~ [seven weeks of the date of receipt of the submission by the secretariat~~]~~. In general, the timetable for the initial check should conform to the following:

(a) The secretariat should perform the initial check and prepare a draft status report within three weeks after the submission date of the annual GHG inventory and send it to the Party for comments;

(b) Each Party should provide comments on the draft status report within three weeks. A delay in the preparation of the draft status report shall not shorten the time available for the Party concerned to comment on the draft status report. The secretariat shall immediately notify the Party concerned of any omissions or technical format ~~problems~~ issues identified in the initial check.

96. Any information, corrections, additional information or comments on the draft status report received from the Annex I Party within six weeks of the submission due date shall be subject to an initial check and shall be covered in the final status report. A delay in the submission of the annual inventory shortens the time available for the Party concerned to comment on the draft status report.

II. Synthesis and assessment

97. The synthesis and assessment will be conducted annually and should, in general, conform to the following timetable:

(a) The secretariat will complete the synthesis and assessment report (part I), containing the elements in paragraph ~~16~~ 108 ~~above~~below, within 10 weeks from the due date for submission.[10] The secretariat will incorporate all submissions and any re-submissions from Annex I Parties that were provided as a response to the status report and were received within six weeks from the due date for submissions. Annex I Parties should provide comments within three weeks of receipt of the draft synthesis and assessment report. If possible, the secretariat should complete a synthesis and assessment of the GHG inventories submitted after that date and should publish these assessments as separate documents (addenda to the synthesis and assessment report) provided that this does not delay the review process for other Annex I Parties;

(b) The preliminary analysis of individual Annex I Party inventories (~~part~~ S&A II of the synthesis and assessment), containing the elements in paragraph ~~17 above~~109 below, will be completed at the latest four weeks prior to the scheduled individual review by the expert review team, either conducted under these review guidelines or biennial report and national communications reviews under these guidelines for the Party concerned <<placeholder timing BR and NCs reviews vs timing inventory submission>>. The secretariat will send a draft of the preliminary analysis to the Party at the latest seven weeks prior to the scheduled individual review by the expert review team, and the Party will provide comments within three weeks. The preliminary analysis and the Party's comments will be forwarded to the expert review team for further consideration and as input for the individual review.

**End of option 1**

**Option 2**

I. Standarized checks

[10] In accordance with decision 24/CP.19, the due date for submission of the GHG inventories of Annex I Parties is 15 April of each year.

98. The standardized checks for each Annex I Party shall be performed and a draft standardized check report shall be completed within eight weeks after the submission due date of the annual inventory.

99. If results from the standardized checks indicate findings for individual Annex I Parties that have not been clarified in previous reviews, the secretariat shall include such findings in the communication tool pursuant to paragraph ~~72~~ 69 and notify the respective Party. Annex I Parties should provide comments in the communication tool within three weeks of receipt of the notification. These specific findings in the communication tool, together with the comments provided by the respective Party, will be provided to the corresponding expert review team as input for the individual review. A delay in the preparation of the standardized checks shall not shorten the time available for the Party concerned to comment on the country-specific findings.

100. Any information, corrections, additional information received from the Party included in Annex I within six weeks of the submission due date shall be subject to the standardized checks. A delay in the submission of the annual inventory may shorten the time available for the Party concerned to comment on the findings from the standardized checks.

**End of option 2**

III. Individual inventory review

101. The secretariat should forward all relevant information to the members of the expert review teams one month prior to the start of the review activities of the individual inventories. Prior to the start of the review, the expert review teams shall prepare for the review <<placeholder for text similar to "such as by reading the NIR and considering the tools prepared by the secretariat">> and should raise questions for clarification to Parties under review, if necessary, two weeks prior to the start of the review, using the online communication tool. Parties should respond within two weeks after they received the questions in the online communication tool.

102. To achieve consistent review reports and a comparable treatment of Parties in the review process the secretariat shall implement QA procedures. The QA procedures developed by the secretariat should be presented to and discussed at the meeting of the lead reviewers. [The purpose of the QA procedures is to ensure a consistent identification and treatment of issues. Editorial streamlining should only take place to the extent that the timelines for publication of the review reports are not compromised.]

103. Each centralized review should be completed within [20][25] weeks,[11] each desk review[, as referred to in paragraph 78(a) above,] should be completed within [15][20] weeks and each in-country review should be completed within 14 weeks. In general, the timetable for the individual review activities, assuming available resources, should conform to the following:

(c) ~~**Option 1**. No desk review~~

(d) ~~**Option 2**:~~ Desk review: each expert review team shall, under its collective responsibility, produce a draft technical review report, in accordance with paragraphs ~~23~~ 113 to ~~27~~ 117 above, to be finalised within [six] [seven] weeks. The secretariat applies QA/QC procedures, edits and formats the draft report within four weeks and sends it to the Annex

[11] According to the original version of these guidelines (see FCCC/SBSTA/2002/L.5/Add.2), a total of 22 weeks was allocated for the completion of a centralized review. However, this period does not include the necessary time for editing and formatting of the review reports by the secretariat as required in paragraph 41(b). Therefore, the total time available for review has been increased from 22 to 25 weeks to be consistent with the approach taken for desk and in-country reviews.

Party subject to the review for comment. The Party shall be given four weeks from its receipt of the draft report to provide comments thereon. The ERT shall produce the final version of the annual review report, taking into account the comments of the Annex I Party, within four weeks of receipt of the comments and send the revised version to the secretariat. All final review reports shall be published on the UNFCCC website within two weeks and forwarded by the secretariat, together with any written comments on the final review report by the Party that is the subject of the report, to the COP.

(i) [If a Party received a list of potential [problems] [issues] at the end of the individual review, the finalization of the draft report for that Party should be extended and the draft report should be finalized one week after the receipt of the response to the list of potential [problems][issues].]

(e) Centralized review: each expert review team shall, under its collective responsibility, produce a draft technical review report, in accordance with paragraphs 113~~23~~ to ~~27~~ 117 above, to be finalised within [six] [eight][ten ]weeks. The secretariat applies QA/QC procedures, edits and formats the draft report within four weeks and sends it to the Annex I Party subject to the review for comment. The Party shall be given four weeks from its receipt of the draft report to provide comments thereon. The ERT shall produce the final version of the annual review report, taking into account the comments of the Annex I Party, within [four] [six] weeks[12] of receipt of the comments and send the revised version of the report to the secretariat. All final review reports shall be published on the UNFCCC website within two weeks and forwarded by the secretariat, together with any written comments on the final review report by the Party that is the subject of the report, to the COP.

(i) [If a Party received a list of potential problems [issues] at the end of the individual review, the finalization of the draft report for that Party should be extended and the draft report should be finalized one week after the receipt of the response to the list of potential problems [issues].]

(f) In-country review: Each expert review team shall, under its collective responsibility, produce a draft technical review report, in accordance with paragraphs ~~23~~ 113 to ~~27~~ 117 above, to be finalised within [four] [three] weeks. [The secretariat applies QA/QC procedures, edits and formats the draft report within four weeks and sends it to the Annex Party subject to the review for comment. The Party shall be given four weeks from its receipt of the draft report to provide comments thereon. The ERT shall produce the final version of the annual review report, taking into account the comments of the Annex I Party, within [two] [three] weeks of receipt of the comments and sends the revised version to the secretariat. The secretariat edits and formats the report and publishes it on the UNFCCC website within one week. All final review reports shall be published within one week and forwarded by the secretariat, together with any written comments on the final review report by the Party that is the subject of the report, to the COP.

(i) [If a Party received a list of potential [problems ][issues] at the end of the individual review, the finalization of the draft report for that Party should be extended and the draft report should be finalized one week after the receipt of the response to the list of potential [problems] [issues].]

104. ~~Parties should endeavour to incorporate recommendations and encouragements into future inventory submissions [at the earliest possible opportunity] [at the next inventory submission]. However, the significant overlap between the time Parties begin the inventory compilation process and receipt of recommendations and encouragements from the review of the previous inventory submission may preclude these being addressed in the next~~

[12] [Four][six] weeks, or [20][30] working days if the Party has a public holiday occurring within the four-week time frame.

~~inventory submission.~~

~~The review report should acknowledge that Parties should endeavour to incorporate recommendations and encouragements into future inventory submissions.~~ In assessing the implementation of previous recommendation, the review report should acknowledge that whilst Parties should endeavour [to report category-specific improvements or planned improvements as per the appendix to the UNFCCC Annex I [inventory] reporting guidelines~~[on annual inventories]~~][to incorporate recommendations and encouragements into future inventory submissions], the significant overlap between the time Parties begin the inventory compilation process and receipt of recommendations and encouragements from the review of the previous inventory submission may preclude these being addressed in the next inventory submission.

105. [For Parties included in the Kyoto Protocol the timeline should follow the agreed timeline for reviews under the Kyoto Protocol.]

## E. Reporting

### I. Status Report

106. **Option 1.** Note by EU: Discuss whether the general parts covered by the initial checks and S&A ~~Part~~ I, separate reports are needed in the future, or whether it would be more useful for the public if review tools like the GHG Locator were published instead of pdf files with the S&A reports.

**Option 2.** The results of the initial check for each Annex I Party will be published on the UNFCCC web site as a status report, mainly in a tabular format. The status report will, inter alia:

(a) Indicate the date of receipt of the GHG inventory submission by the secretariat;

(b) Indicate whether the NIR and the CRF have been submitted;

(c) Determine whether the inventory information has been provided in the correct format as called for in the UNFCCC Annex I inventory reporting guidelines;

(d) Determine whether the submission is complete and identify any gaps in the reported data, covering the elements listed in paragraph ~~XX~~67 above.

### II. Synthesis and assessment report

107. The synthesis and assessment will consist of two parts: S&A ~~part~~ I and S&A ~~part~~ II, which are described in paragraphs ~~111~~ 108 and ~~112~~ 109 below, respectively. The results of S&A ~~part~~ I will be published on the UNFCCC web site[,] [as a synthesis and assessment [report][data] ]. S&A ~~Part~~ II, containing a preliminary analysis of individual Annex I Party inventories, will be sent to the respective Party for comments. The results of ~~part~~ S&A II, together with the comments provided by the respective Party, will be provided to the corresponding expert review team as input for the individual review[, either conducted biennially under these review guidelines or conducted for biennial reports and national communications as described in these guidelines].

~~Part~~ S&A I

108. The synthesis and assessment report (~~part~~ S&A I) will provide information to allow comparisons across Annex I Parties[,] [and to describe common methodological issues.] This report will compile and compare information across Annex I Parties in a tabular and, as appropriate, graphical format, including:

(a) For key categories[, based on the approach used by the reporting software ~~secretariat,~~] and other selected categories:

(i) Methodologies used in the preparation of the inventories;

(ii) Implied emission factors, default values and ranges contained in the 2006 IPCC Guidelines[ and, if applied, the wetlands supplement];

(iii) Reported activity data and data from authoritative sources, if possible;

(iv) [Other information provided in the various CRF tables].

(b) Estimates of CO2 emissions from fuel combustion using the IPCC reference approach compared with estimates of CO2 emissions from fuel combustion using a national (sectoral) approach;

(c) ~~[Estimates of emissions of hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride and the ratio between the actual and potential emissions]~~<<Note: the UNFCCC reporting guidelines do not require reporting potential emissions>>;

(d) Inventory recalculations.

~~Part~~ S&A II

109. The preliminary analysis of individual Annex I Party inventories (~~part~~ S&A II), will be based on the information contained in the synthesis and assessment report, and will, for each individual inventory:

(a) Identify issues within source or sink categories requiring further consideration or clarification during the [biennial] [annual] individual review stage;

(b) Identify any recurring [problems] [issues] with reporting;

(c) Examine inventory recalculations and the consistency of the time series;

(d) Assess the availability of documentation on:

(i) QC measures implemented by the Party~~National self-verification procedures or independent review in the technical review process~~;

(ii) The application of the 2006 IPCC Guidelines, including estimations of uncertainties and, if applied, the application of the wetlands supplement;

(e) Assess the consistency of information on methodologies and emission factors in the CRF with related information in the NIR.

## III. Individual review reports

110. Under its collective responsibility, the expert review team will produce an individual inventory review report for publication in electronic format on the UNFCCC web site based on the results of the tasks listed in paragraph [85] [87 and 88] ~~[21 above] [90 and 91 above, as appropriate]~~. The review reports should contain an objective assessment ~~[~~of the adherence~~]~~ of the inventory information ~~[~~to the UNFCCC Annex I inventory reporting guidelines and the provisions of relevant decisions by the COP~~]~~ and should not contain any political judgment. The review report [may][shall, as appropriate,] also contain recommendations and encouragements from the ERT for how the Party can improve the quality of its inventory. <<check consistency of language with para. 104>>

111. The review reports should not duplicate information already publically available, e.g. through the CRF tables and NIRs reported by Parties.

112. Expert review teams shall pay particular attention to key categories, recommendations made in previous review reports, progress in the implementation of the improvements or planned improvements, issues which have been identified in previous ~~reviews, or~~ stages of the review, and categories where changes have been reported by the Party. Clear priority shall be given to factors that have an impact on the level and/or trend of total national GHG emissions and removals.

113. The report ~~should be concise and~~ should include standardized tables developed by the secretariat and approved by the lead reviewers, whenever possible, to increase the efficiency of communication, without duplicating the information in the text of the review report. The status of previous review recommendations should be listed in standardized tables to increase the efficiency of the review. The ~~issues identified~~ recommendations made in the report, consistent with para. 112, should be listed ~~prioritized~~ by the ERT in order of importance. The report should clearly indicate how Parties should address the recommendations made ~~issues identified~~.

114. The following specific elements shall be included in the individual review report:

(a) A summary of the results of the inventory review~~, including a description of emission trends, key categories and methodologies~~ and a general assessment of the inventory;

(b) A technical review of the elements specified in paragraph ~~19~~ [85] [87 and 88] above;

(c) An identification of issues in accordance with paragraph ~~23~~ 92 above.

(d) An ~~evaluation~~ assessment of the overall organization of the national inventory arrangements, including a discussion of the effectiveness and reliability of the institutional, procedural and legal arrangements for estimating greenhouse gas emissions.

115. The report from in-country reviews shall be as concise as possible and ~~t~~the ERTs shall make every effort that the report does not ~~not~~ exceed 30 pages~~] [should not exceed [20] [25–30] pages]~~ including a 2–3 page summary of the review outcomes.

116. The report from centralized reviews shall be as concise as possible and the ERTs shall make every effort that the report does~~[shall~~ not exceed 25 pages~~] [should not exceed 15 pages] and should focus on particular strengths and previously identified potential issues as well as on an overall appraisal of the quality and reliability of the inventory, emission trends, actual emission factors and activity data, and on the degree of adherence to the reporting guidelines, the 2006 IPCC Guidelines and, if applied, the wetlands supplement~~.

117. **Option 1**: <<Placeholder: Add reference to paragraph 63 addressing that desk reviews are only contingency ~~Remove desk reviews~~>>

**Option 2**: The report for desk review ~~[shall not exceed 8 pages] [should not exceed 15 pages and should focus on~~ **Option A:** should not exceed 15 pages and should focus on particular strengths and identified [problems][issues] as well as on an overall appraisal of the quality and reliability of the inventory, emission trends, actual emission factors and activity data, and on the degree of adherence to the 2006 IPCC reporting guidelines and the IPCC good practice guidance. **Option B**: shall not exceed 8 pages and should focus on findings related to recalculations, from the standardized checks and implementation of previous review recommendations. The secretariat with support from the lead reviewers should develop a mostly tabular format for the review reports from desk reviews that should be based on the remaining findings in the online communication tool.

118. [The ERT shall inform the Party under review immediately after the "review week" of the provisional main findings.] <<Note: to be considered along with para. 94>>

### F. ~~Annual report of emissions and trends of greenhouse gases~~

119. ~~As part of the technical review of annual national GHG inventories, the secretariat will also compile and tabulate aggregate information and trends concerning greenhouse gas emissions by sources and removals by sinks, and any other inventory information, in a stand-alone document to be published electronically on the UNFCCC web site. This document will draw information from the latest available GHG inventory submissions of all Annex I Parties and will serve to provide aggregate information to the COP on GHG emissions by sources and removals by sinks and their trends for all Annex I Parties. This document may also be used as an input to the individual technical review process.~~

120. ~~A summary of the document mentioned in paragraph 122 above will be published in electronic format for the consideration of the COP and the subsidiary bodies.[12] This summary will include trends of GHG emissions by sources and removals by sinks and an assessment of the adherence of the reported inventory information to the reporting guidelines, as well as to the provisions of relevant decisions by the COP, including information on any delays in submitting the annual inventory information.[13]~~

## PART IV: UNFCCC Guidelines for the technical review of biennial reports from Parties included in Annex I to the Convention

### A. Purpose of the review

121. The technical review of BRs is the first step of the international assessment and review (IAR) process. The overall objectives of the IAR process are to review the progress made by developed country Parties in achieving emission reductions and to assess the provision of financial, technological and capacity-building support to developing country Parties, as well as to assess emissions and removals related to quantified economy-wide emission reduction targets under the SBI, taking into account national circumstances, in a rigorous, robust and transparent manner, with a view to promoting comparability and building confidence. In addition, the IAR process aims at assessing the implementation of methodological and reporting requirements.

122. The purposes of the technical review of BRs from Annex I Parties are the following:

(a) To provide a thorough and comprehensive technical review of the parts of BRs that are not otherwise covered in the annual GHG inventory review;

(b) Taking into account paragraph 59(a) above, to examine in an objective and transparent manner whether quantitative and qualitative information was submitted by Annex I Parties in accordance with the "UNFCCC biennial reporting guidelines for developed country Parties" adopted by the COP;[15]

(c) To promote consistency of the information contained in BRs submitted by Annex I Parties;

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[12] ~~In order to ensure the quality and timeliness of the information included in this summary, the secretariat will prepare this report for the consideration of the Convention bodies during the second sessional period scheduled for each year.~~

[14] Note: Although suggesting to delete this text, participants of the workshop noted that the deletion does not imply that the content of these paragraphs is outdated or not valid anymore. The deletion rather reflects the judgment that the documents referred to in the paragraphs should be mandated through relevant SBSTA conclusions or a COP decision, rather than through the text of inventory review guidelines.

[15] Decision 2/CP.17, annex I; decision 19/CP.18.

(d) To assist Annex I Parties in improving their reporting of information and the implementation of their commitments under the Convention;

(e) To undertake an examination of the Party's progress in achieving its economy-wide emission reduction target.

(f) To ensure that the COP has reliable information on the implementation of commitments under the Convention by each Annex I Party with a view to promoting comparability and building confidence.

### B. General procedures

123. Each Annex I Party's BR will be reviewed. A Party's BR shall be reviewed in conjunction with its NC in the years in which both the BR and the NC are submitted.

124. Prior to the review, as part of its preparation, the ERT shall conduct a desk review of the BR of the Annex I Party under review. The ERT, through the secretariat, shall notify the Party concerned of any questions the team has regarding the information provided in the BR and of any focal areas for the review.

125. The output of the technical review will be a technical review report, building on existing reporting standards and including an examination of the Party's progress in achieving its economy-wide emission reduction target.

### C. Scope of the review

126. The individual review will:

(a) Provide an assessment of the completeness of the BR, in accordance with the reporting requirements contained in decisions 2/CP.17 and 19/CP.18, and an indication of whether it was submitted on time;

(b) Examine the consistency of the BR with the annual GHG inventory and NC but it will not include in-depth examination of the inventory itself;

(c) Undertake a detailed technical examination of only those parts of the BR that are not included in the annual GHG inventory review, including the following:

(i) All emissions and removals related to the Party's quantified economy-wide emission reduction target;

(ii) Assumptions, conditions and methodologies related to the attainment of the Party's quantified economy-wide emission reduction target;

(iii) Progress the Party has made towards the achievement of its quantified economy-wide emission reduction target;

(iv) The Party's provision of financial, technological and capacity-building support to developing country Parties;

(d) In the years in which an NC is submitted at the same time as the BR, serve as part of the review of the NC, where there is an overlap between the content of the BR and that of the NC.

Identification of issues

127. The issues identified during the technical review of individual sections of the BR shall be identified as relating to the following:

(a) Transparency;

(b) Completeness;

(c) Timeliness;

(d) Adherence to the biennial report reporting guidelines as per decision 2/CP.17.

### D. Timing

128. If an Annex I Party expects difficulties with the timeliness of its BR submission by the due date, it should inform the secretariat thereof by the due date of the submission, to the extent possible, in order to facilitate the arrangements of the review process.

129. The ERTs shall make every effort to complete the individual review of BRs within 15 months of the due date of their submission for each Annex I Party.

130. If additional information is requested during the review week, the Annex I Party should make every reasonable effort to provide the information within two weeks after the review week.

131. The ERT for the review of the BR of each Annex I Party shall, under its collective responsibility, produce a draft technical review report following the format detailed in paragraph 71 below, to be finalized within eight weeks after the review week.

132. The draft technical review report of each BR shall be sent to the Annex I Party subject to the review for comment. The Party concerned shall be given four weeks[16] from its receipt of the draft report to provide comments thereon.

133. The ERT shall produce the final version of the BR technical review report, taking into account the comments of the Annex I Party within four weeks of receipt of the comments. All final review reports shall be published and forwarded by the secretariat, together with any written comments on the final review report by the Party that is the subject of the report, to the COP.

### E. Reporting

134. The following specific elements shall be included in the technical review report referred to in paragraph 54(b) above:

(a) The results of the technical examination of the elements specified in paragraph 63(c) above, including an examination of the Party's progress in achieving its economy-wide emission reduction target;

(b) An identification of issues in accordance with paragraph 64 above.

## PART V: UNFCCC Guidelines for the technical review of national communications from Parties included in Annex I to the Convention

### A. Purpose

135. The purposes of the review of NCs from Annex I Parties are the following:

(a) To establish a process for a thorough and comprehensive technical review of the implementation of the commitments under the Convention by individual Annex I Parties and Annex I Parties as a group;

(b) Taking into account paragraph 72(a) above, to examine in an objective and transparent manner whether quantitative and qualitative information was submitted by Annex I Parties in accordance with the "Guidelines for the preparation of national

[16] Four weeks, or 20 working days if the Party has a public holiday occurring within the four-week time frame.

communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications" adopted by the COP;

(c) To promote consistency of the information contained in the NCs of Annex I Parties;

(d) To assist Annex I Parties in improving their reporting of information under Article 12 of the Convention and the implementation of their commitments under the Convention;

(e) To ensure that the COP has reliable information on the implementation of commitments under the Convention by each Annex I Party and Annex I Parties as a whole.

### B. General procedures

136. Each Annex I Party's NC will be reviewed, where relevant in conjunction with the review of the BR.

137. Each NC submitted under the Convention by an Annex I Party shall be subject to an in-country review.

138. Annex I Parties with total GHG emissions of less than 50 Mt CO2 eq (excluding LULUCF) in accordance with their most recent GHG inventory submission, with the exception of Parties included in Annex II to the Convention, may choose to undergo a centralized review for their NCs.

139. Prior to the review, the ERT shall conduct a desk review of the NC of the Annex I Party under review. The ERT, through the secretariat, shall notify the Party concerned of any questions the team has regarding the NC and of any focal areas for the review.

### C. Scope of the review

140. The individual review will, noting paragraph 9 above:

(a) Provide an assessment of the completeness of the NC in accordance with the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications" adopted by the COP, and an indication of whether it was submitted on time;

(b) Check the consistency of information contained in the NC with that contained in the BR and GHG inventory. If the same information is reported elsewhere, the information should be reviewed only once;

(c) Undertake a detailed technical examination of the unique information contained in the NC and the procedures and methodologies used for the preparation of the information therein, noting that the outline of the NC is included in the list below:

(i) National circumstances relevant to GHG emissions and removals;

(ii) GHG inventory information;

(iii) Policies and measures;

(iv) Projections and the total effect of policies and measures;

(v) Vulnerability assessment, climate change impacts and adaptation measures;

(vi) Financial resources;

(vii) Transfer of technology;

(viii) Research and systematic observation;[17]

(ix) Education, training and public awareness;

(d) Giving consideration to national circumstances, identify any potential issues referred to in paragraph 78 below.

Identification of issues

141. The issues identified during the technical review of individual sections of the NC shall be identified as relating to the following:

(a) Transparency;

(b) Completeness;

(c) Timeliness;

(d) Adherence to the NC reporting guidelines as per decision 4/CP.5.

### D. Timing

142. If an Annex I Party expects difficulties with the timeliness of its NC submission by the due date, it should inform the secretariat thereof by the due date of the submission, to the extent possible, in order to facilitate the arrangements of the review process.

143. The ERTs shall make every effort to complete the individual review of NCs within 15 months of the due date of their submission for each Annex I Party.

144. If additional information is requested during the review week, the Annex I Party should make every reasonable effort to provide the information within two weeks after the review week.

145. The ERT for the review of the NC of each Annex I Party shall, under its collective responsibility, produce a draft of the review report following the format detailed in paragraph 85 below, to be finalized within eight weeks after the review week.

146. The draft of each NC review report shall be sent to the Annex I Party subject to the review for comment. The Party concerned shall be given four weeks[18] from its receipt of the draft report to provide comments thereon.

147. The ERT shall produce the final version of the NC review report, taking into account the comments of the Annex I Party within four weeks of receipt of the comments. All final review reports shall be published and forwarded by the secretariat, together with any written comments on the final review report by the Party that is the subject of the report, to the COP.

### E. Reporting

148. The following specific elements shall be included in the report referred to in paragraph 54(c) above:

(a) A technical review of the elements specified in paragraph 77(c) above;

(b) An identification of issues in accordance with paragraph 77(d) and 78 above.

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[17] Information provided under this heading includes a summary of the information provided on global climate observing systems.

[18] Four weeks, or 20 working days if the Party has a public holiday occurring within the four-week time frame.